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UNITED STATES DEPARTMENT of AGRICULTURE Radio Service OFFICE OF INFORMATION

HOUSEKEEPERS' CHAT SATURDAY, OCTOBER 30, 1937

(FOR BROADCAST ONLY)

Subject: "NEWS NOTES FROM WASHINGTON." Information from the Bureau of Plant Industry, United States Department of Agriculture.

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Our Washington letter this week replies to the often-asked question: "Can the chestnut tree ever come back?" by reporting on the chestnut-breeding work now in progress at the Department of Agriculture.

Writes our correspondent: "These bright October days make me realize, as nothing else does, that I wouldn't be a day younger if I could. I wouldn't be a child today if I had the chance, just because I should miss one of the great thrills of my life — chestnutting. Twenty years or so ago, I am sure every child from southern New England west to Michigan and south to Georgia and Arkansas looked forward to the autumn Saturdays when he and his companions set forth to the bright autum woods, each with a bag over his shoulder to gather those delicious brown kernels that were bursting from their spiny burs.

"The chestnut tree was one of the largest and most dominant trees in the large mountain areas of the Appalachian range. It stood eighty to a hundred feet tall and was very valuable for telephone poles, fence rails, mine props and so on because it was uniform in size, without knots, durable and easy to split. And chestnut wood was a favorite for doors and woodwork in homes and for furniture.

"Of course, you know the fate that overtook the chestnut. A fatal fungus disease from the Orient, first discovered in this country in 1904, practically wiped out all these trees in a few years. I say 'wiped out', but what has really happened up to this time is that the chestnut has been reduced from a magnificent forest tree to a low shrub. Because the roots of the chestnut are fairly resistant to the blight, shoots from the root still keep growing up even after the trunk has died, and these shoots sometimes live long enough to produce nuts. The plant scientists say that this situation has its good and its bad features. The new shoots appearing in the forests keep the chestnut from being entirely extinct and because some of them live long enough to bear nuts, they help perpetuate the species. Also the scientists say there is a possibility that some of these shoots might develop a blight-resistant stock through bud variation. On the other hand, these shots furnish hosts for the fungus, so keep it alive and vigorous. The fungus can live as a week parasite on various species of oak but the sprouts from chestnut roots or stumps keep it healthy.

"So the scientists believe that the greatest hope for a chestnut in this country lies in introducing trees from the Orient that are able to resist the blight. At present the most promising is the Chinese chestnut. It is more blight-resistant than the others, and its nuts combine the large size of the European chestnut with the sweetness of the American. Plant-breeders here at the Department are also interested in the Japanese chestnut which has considerable resistance to

blight but unfortunately produces nuts that are rather negative in flavor. But they belive this species may be useful in breeding. By selection and hybridization, they are trying to develop varieties for both commercial and home growing that will resist blight and weevils, if possible and will be hardy enough to grow throughout the chestnut range. They also are working to produce chestnut trees that will bear heavy annual crops, beginning at a fairly young age. They are trying to get a bur that will separate automatically from the nuts and hold not more than 3 rather large nuts. And they want the nuts to have fine texture, good flavor, good keeping quality, and be attractive in appearance, not subject to shell splitting, and have an inner skin that will not cling to the kernel.

"I think you will be interested if I quote a statement from the new Yearbook of the Department of Agriculture about the present breeding work. Says the Yearbook: 'Breeding work is largely confined to the Chinese chestnuts, though the Japanese may be useful to some extent. The present work in improving the Chinese chestnut involves the selection of seedlings promising as new varieties, and the use of such varieties in actual breeding by hybridization. During the past several years the Bureau of Plant Industry......has examined nuts from several hundred trees in various parts of the country. Probably 100 seedlings are now under observation. Scions of many of the best have been grafted upon nursery stocks and are now on their way to early bearing. Three of the trees, tentatively selected in 1930, have been propagated by individuals outside of the Department and to some extent are being commercialized, although they are by no means fully tested or approved by the Bureau. One of these is known as Carr, after R.D. Carr, Magnolia, North Carolina, to whom the original tree was sent by the Bureau in 1919. Another is Hobson, so called after James Hobson of Jasper, Georgia, to whom, with a number of others, it was sent in 1919. The third variety is Zimmerman. This was selected by the Bureau from a lot of seedlings grown by G. A. Zimmerman from nuts imported by him in 1924 through Nanking University, Nanking, China.

"'The trees under observation also include a number of Japanese seedlings that now appear to be of considerable promise. The majority of these are of recent origin, as they were brought to light in 1929 as a result of cash prizes financed that year by John Harvey Kellogg, Battle Creek, Michigan, through the Northern Nut Growers' Association.'

"So perhaps the Orient which was responsible for the blight that wiped out our native chestnuts, may make it up to us after all with its blight-resistant varieties. And let's hope that the children of a future day will have the fun of going chestnutting."

That concludes the week's letter from the Department of Agriculture in Washington, D. C.

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